

# WEEKLY REPORT

严凡

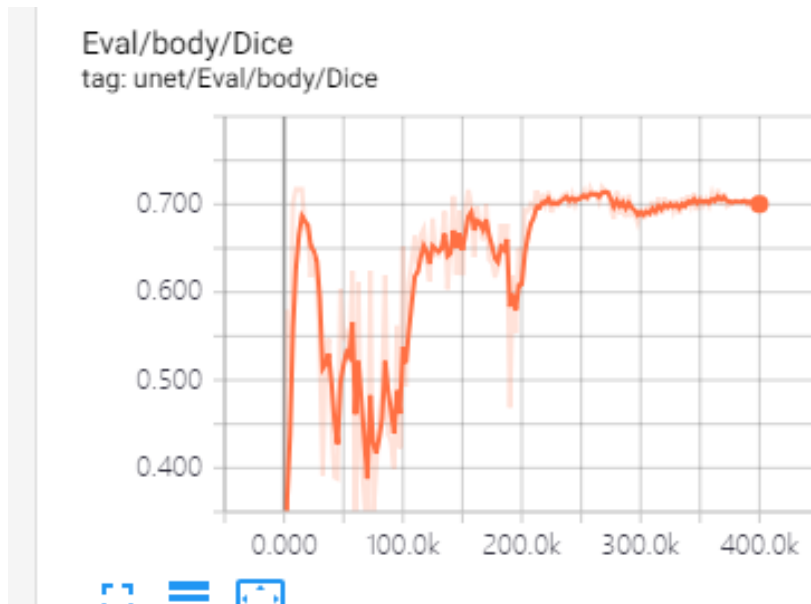
April 14, 2019

## 1. 上周工作

### 1.1 训练 NF 数据

结果:

```
[4 128 512] [/home/yf/NFData/WEMRI_206_001_20100326/Series100.mhd /home/yf/NFData/WEMRI_206_001_20100326/Series100.mhd /home/yf/NFData/WEMRI_206_001_20100326/Series100.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd /home/yf/NFData/WEMRI_130_001_20090311/Series13.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd /home/yf/NFData/WEMRI_019_001_20070713/Series12.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd...]
[4 128 512] [/home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd /home/yf/NFData/WEMRI_014_001_20070725/Series22.mhd...]
2019-04-12 07:36:29,118 - INFO - body/Dice: 0.698
2019-04-12 07:36:29,256 - INFO - Loss for final step: 0.00021265764.
```



得到了一个目前来说比较好的结果:0.698

**上周精确度不高的原因:**

训练的步骤不到位。后来和学长分析,发现是步骤太少了。这次训练了 40 万步。

并且切片方向对实验的影响是非常大的。由于输入图片调整成(1028,32,512)我是把 1028 当作切片层去进行训练的。所以每个图片是 32,512。32 的话进入 unet 网络就会下降 4 次。最后特征像素就没多少了。

### **接下来的尝试**

#### **1. 二维训练，三维评估**

### **1.2 代码梳理**

对之前的代码结构又一次更好的梳理了下。结构更清晰，更灵活，为未来做各种实验打好基础。

工作时长 $(10+6+10+10+10+6+8)=60$  小时